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Newsbulletin

The newsweekly for Laboratory employees and retirees

Bacteria in industrial fluids zapped with UV light

Pesky bacteria in machining fluids, wastewater and many other liquids could be zapped out of existence through a new process jointly developed by the Laboratory and Triton Thalassic Technologies Inc.

The fluid treatment process, which uses ultraviolet light, holds promise to reduce health risks for millions of U.S. workers exposed to contaminated fluids in the auto, aerospace and other metalworking industries. This technology also may be applied in decontamination of drinking water, wastewater, cooling towers, aquaculture systems and ballast water from commercial ships, said Barry Ressler, chairman and chief executive officer of Triton Thalassic Technologies of Ridgefield, Conn., also known as T3I.

"T3I has invented a breakthrough process that uses ultraviolet light to treat opaque industrial fluids, and is intended to eliminate the need for chemical biocides to control bacteria in these fluids," Ressler said. "In addition, T3I's process also may extend the life of these metalworking fluids while reducing waste volumes requiring treatment and disposal."

Machinists and metalworkers use a wide variety of industrial fluids for lubricating and cooling parts and tools and removing chips in grinding, milling and other operations.

Machining operations turn the fluids into aerosols to which workers are exposed. These aerosols are a complex mix of the fluids, bacteria, endotoxins that are byproducts of the bacteria, and the chemical biocides used to treat the fluids, Ressler explained. Studies have shown that workers exposed to these aerosols may face significant health risks.

Biocides used to control the bacteria increase health hazards for exposed workers, added John Coogan of Chemical and Environmental Research and Development (CST-18).

Coogan and Los Alamos researchers Zoran Falkenstein, also of Chemical and Environmental Research and Development (CST-18), Waine Archer of Materials Technology: Coatings and Polymers (MST-7), and Harold Garcia and Mike Garcia, both of CST-18, are working with T3I on development of the ultraviolet process through a small business cooperative research and development agreement.

Patent protection for T3I's original invention is pending. The Lab has led development of a new type of ultraviolet source at the heart of the system that produces a previously unattainable ultraviolet power density at reasonable electrical efficiency. Other ultraviolet treatment systems aren't nearly as effective as the device developed by the Lab and T3I, Coogan said.

Coogan's team is working closely with research scientist Gary Morgan of T3I's research and product development facility in Lusby, Md. Also supporting the project are James Stangroom of Sheffield, England, and David Wright of the University of Maryland's Chesapeake Biological Laboratory, both members of the T3I Technical Advisory Committee.

Metalworkers and machinists face elevated risks of gastrointestinal cancer, industrial asthma, other acute lung diseases and dermatitis, according to health studies.

Many experts attribute such health risks to the mix of aerosolized fluids, bacteria, endotoxins and biocides. The U.S. Occupational Safety and Health Administration is considering stringent new regulations governing exposure limits for metalworking and machining fluids.

Peter Lips, T3I president and chief operating officer, said the company's treatment system has the potential to eliminate three major contributors to the health threats. "Our system seeks to eliminate the need for chemical biocides and potentially could reduce and maintain the bacteria level to one-millionth of the highest levels typically seen with biocide treatment," Lips said. "By reducing bacteria counts, our system will reduce dramatically the threat from endotoxins, which can cause fever and shock when ingested."

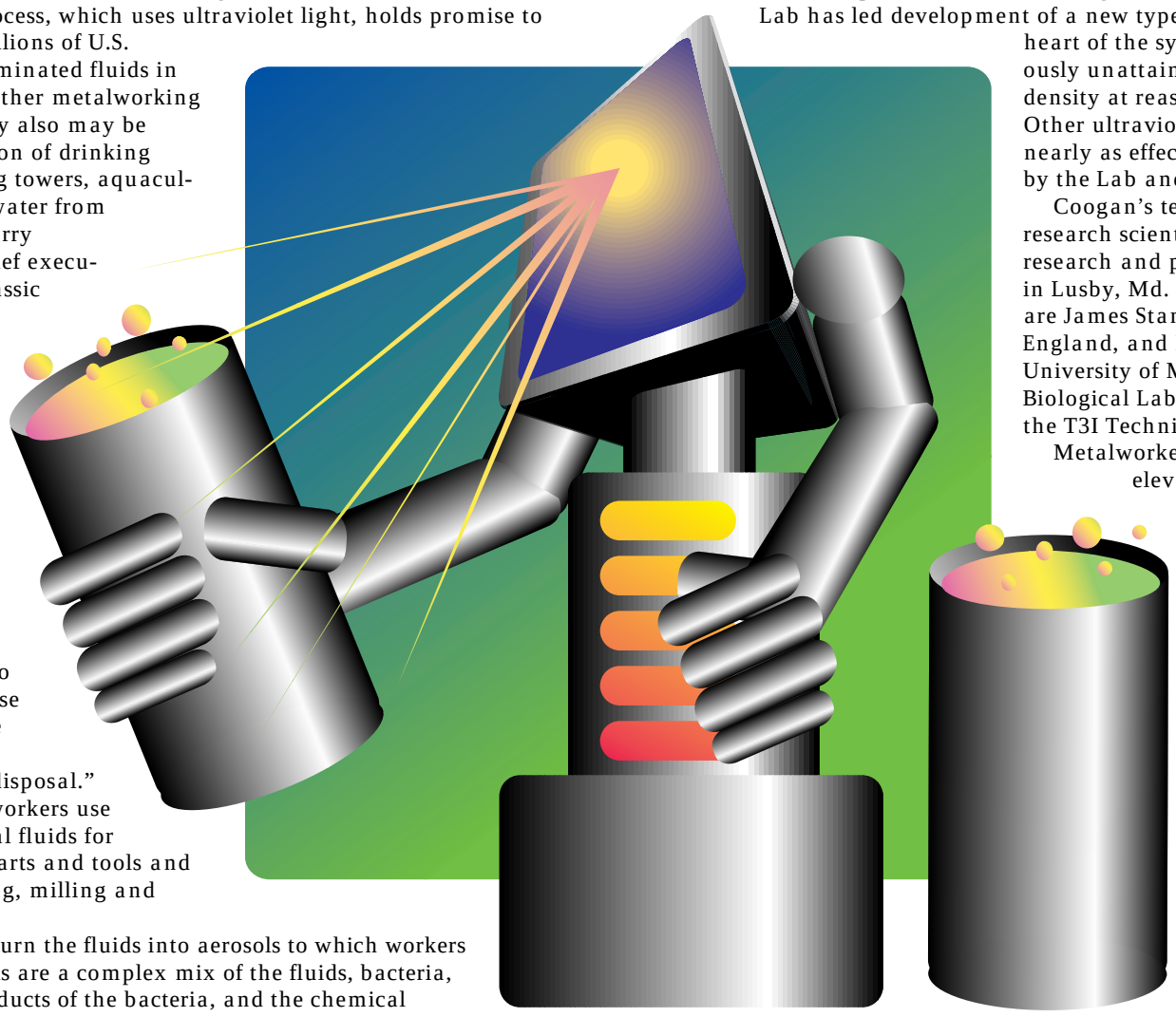

Illustration by Edwin Vigil

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Human Resources director finalists named

Three finalists have been named for the position of Human Resources (HR) Division director. They are Michael Lucero of the HR Division Office, Stanley McKnight, assistant vice chancellor of Human Resources at University of California, Los Angeles, and Barbara Cooper, director of Human Resources at University of California, Riverside.

Laboratory Director Sig Hecker is accepting comments on the finalists through next Friday. They can be mailed to him at Mail Stop A100.

The new HR director will replace Frances Menlove who is retiring.

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Thirteen thrusts will receive LDRD funding for fiscal year '97

Thirteen thrusts have been selected to receive Laboratory Directed Research and Development competency development funding for the 1997 fiscal year.

Four thrusts will receive $1 million a year for five years; three thrusts will receive $1 million a year for three years; and five thrusts will receive varying amounts of LDRD funding for one year, said Al Sattelberger, director of the Science and Technology Based (STB/LDRD) Program Office.

The STB office received 49 proposals for competency development funding, Sattleberger said. The 1997 fiscal year begins Oct. 1.

A thrust is essentially a project or a small cluster of projects.

The five-year thrusts and the Lab organization that developed the proposal for funding are as follows:

• ***"Actinide Molecular Science,"*** led by the Nuclear Materials Technology (NMT) Division

• ***"Integrated Structural Biology,"*** Life Sciences (LS) Division

• ***"Multiscale Science for Science-based Stockpile Stewardship,"*** Applied Theoretical Physics (X) Division

• A combined thrust based on the two proposals of ***"Science of Polymer Aging"*** submitted by Engineering Sciences and Applications (ESA) Division and ***"Multi-phase Polymer-based Materials"*** submitted by the Theoretical (T) Division. The ESA Division will lead the combined thrust.

The following proposals will receive $1 million for three years:

• ***"Catalysis Science and Technology,"*** Chemical Science and Technology (CST) Division

• ***"Proton Radiography,"*** Physics (P) Division

• ***"X-Ray Hydrodynamic Radiography,"*** Dynamic Experimentation (DX) Division.

Five one-year awards also were made. They went to the following:

• A combined thrust that blends proposals on ***"Trapping and Laser Manipulation of Species"*** proposed by CST Division and ***"Quantum Information Science"*** proposed by P Division. The combined thrust will be lead by CST and receive $750,000

• Proposals on ***"Crisis Forecasting,"*** Computing, Information and Communications (CIC) Division, $500,000

• ***"Dynamic Fracture of Heterogeneous Materials,"*** Materials Science and Technology (MST) Division, $500,000

• ***"Electrons in High Magnetic Fields,"*** MST, $500,000

• ***"Next Generation Biological Toxin Sensors,"*** CST, $500,000

• $500,000 was committed to an application in advanced computational science, yet to be determined, with the specific goal of using advanced computer architecture and ultimately the Advanced Strategic Computing Initiative architecture.

Sattelberger noted that the funds available for new LDRD competency development projects for the 1997 fiscal year were about $10 million, which is more than will be available in future years. He explained that for next fiscal year, 6 percent of the Lab's budget has been allocated for all LDRD projects, up from 5.5 percent this year.

In developing calls for the competency development thrusts, STB asked program offices to provide programmatic perspectives on competency development needs. Members of technical divisions prepared proposals in the identified areas. These were ranked by division management before being forwarded to STB for evaluation.

Sattelberger said he was pleased with the teaming and dialogue that took place among divisions in this process. "This resulted in most proposals involving cross-divisional activities," he said.

Proposals received three independent reviews; the appropriate program office and core competency team scored and ranked each proposal, as did STB, which then prepared an integrated package for Laboratory Director Sig Hecker's approval.

Summaries of the projects and project leaders can be found by going to the Lab's home page then to the LDRD home page on the World Wide Web.

The fiscal year 1997 LDRD program emphasizes strategic funding of projects that position the Lab well for the future, according to Ed Heighway, LDRD office leader.

The Lab is expected to have an estimated $62 million in LDRD funding available for fiscal year 1997 projects, said Heighway, about $5 million more than this fiscal year. Some 330 projects received LDRD funding this year.

Heighway said LDRD funding is available for individual projects, program development and thrusts, with the latter emphasizing research and development in areas that stretch the Lab's core competencies.

—Steve Sandoval

UC/CIO joins community at Festival Los Alamos

Christina Armijo, center, of the Community Involvement and Outreach Office (CIO) talks with Laboratory retiree Glenn Lockhart, right, and Rick Malaspina of the University of California Office of the President at Festival Los Alamos. The university and CIO operated a booth at the community event. Armijo will head up UC's new office in Los Alamos which is scheduled to open later this month. An estimated 6,000 people attended Festival Los Alamos activities at Ashley Pond and Fuller Lodge. *Photo Mike Kolb, CIO*

Bacteria in industrial fluids ...

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T3I also is testing the ultraviolet fluid treatment system on ballast water from commercial cargo ships and tankers, hoping to stop the introduction of zebra mussels, toxic algae and pathogenic microorganisms such as cholera into U.S. ports.

Contaminated ballast water is blamed for introducing the non-indigenous zebra mussel into the Great Lakes where it has flourished, clogging industrial and electric utility water systems and forcing industry and cities to spend hundreds of millions of dollars a year on maintenance and prevention. Recent research has shown that one new non-indigenous species is introduced into San Francisco Bay every 12 weeks.

Sen. John Glenn, D-Ohio, in March introduced a bill to address the ballast problem, saying that vessels from foreign ports discharge into U.S. waters 21 billion gallons of ballast water a year, or 2.4 million gallons an hour.

The value of the nine-month, cost-shared agreement between the Lab and T3I is $103,000. To work with Lab scientists, small businesses such as T3I must demonstrate technical soundness, a dual-use benefit to the company and to the Labs' defense work and an impact on commercial products or services within a few years. Coogan said the Lab's extensive capabilities in manufacturing and ongoing development of new technologies for flexible machining for defense equipment make the project an ideal match.

Triton Thalassic Technologies Inc. is dedicated to the development of environmentally friendly advanced technology solutions for fluid, water and airborne contamination problems.

—Jim Danneskiold

OPEN ENDED

The Newsbulletin editorial section encourages dialogue among Laboratory employees. It is open to all Laboratory employees and retirees.

The section includes letters to the editor, guest editorials, questions and answers, the Inside Story, and corrections and clarifications.

Letters to the editor and guest editorials must address Laboratory policies and practices and be relevant to a broad segment of employees and retirees. Relevancy will be determined by the editor, and all material will be edited for clarity, timeliness, length and Newsbulletin style.

Send letters or questions to Newsbulletin editor, Mail Stop C318. Or send letters and questions to *newsbulletin@lanl.gov* by electronic mail. Letters must be signed and include the author's middle initial, group affiliation and telephone number. Letters should be no longer than two pages of double-spaced text. Authors' names will be published.

Questions must be submitted with the writer's name and telephone number. The Newsbulletin will seek a response to all questions. However, all responses will not appear necessarily in the paper. Those questions and responses that are published will include both the questioner's and the responder's name.

The Newsbulletin reserves the right not to publish submissions.

Employees or retirees who want to suggest an idea for a guest editorial should call the Newsbulletin at 5-7779.

If you have questions about the Newsbulletin's editorial policy, call 7-6103.

The Newsbulletin is published Fridays by Public Information (PA-1). The staff can be reached at Mail Stop C318, fax 5-5552, *newsbulletin@lanl.gov* by electronic mail or stop by the office at TA-3, SM-100. The Newsbulletin office telephone number is 7-6103. Individual telephone numbers are listed below:

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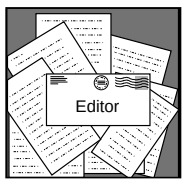

Outsource ... but at what cost?

I would like to register my strong disagreement with general outsourcing of jobs here at the Lab. I am in a technical position, but would like to speak primarily for many who are in support positions. I am a stakeholder in the outcome: I realize my need for support services to get my job done as part of a larger organization. The recent drive toward outsourcing (which I am told is not a "done deal" according to high levels in BUS) is extremely short-sighted and faddish.

Just what are the effects of outsourcing?

• Outsourcing will save a little money (but not much).

• Outsourcing will generate tax revenue (but probably not for Los Alamos).

• Outsourcing eventually will deliver fewer top-notch people (due to lower pay and benefits).

• Outsourcing will undermine business relationships within the Laboratory and destroy the remaining sense of community and mission.

• Outsourcing will therefore cost the Laboratory and the community significantly.

I urge the Laboratory Leadership Council to confer with the Los Alamos Public Schools and learn the results of their outsourcing of custodial service for the past few years. Those who listen will realize that for an activity seemingly as auxiliary as janitorial service, when outsourced, can degrade the quality of an organization (remember the negative effects of laying off "just a few" mailroom workers?). Before the LA schools outsourced their custodians, the individuals had a sense of responsibility and community. Now administrators, principals, teachers and students can testify to the demise of quality in this area. When one's job is outsourced one's job becomes just a job.

Diversity proponents tell us that everyone in an organization is important. Outsourcing proponents tell us that we are just a commodity.

I want the Laboratory to remain strong and grow stronger where it is weak. Outsourcing will do the opposite. The Lab should focus its resources on improving the effectiveness of the organization we have. Outsourcing is another reorganization, a radical reorganization that we cannot afford.

—Larry Bronisz

Dilbert in the Newsbulletin?

I propose that we get the Dilbert comic strip in this paper. This strip is immensely popular, and it would guarantee a great increase in readership. The strip deals mostly with (to phrase it charitably) the foibles of modern management. The author, Scott Adams, bases the strips on anecdotes he receives by electronic mail from readers all over the country.

Having read the strip now for a while, I suspect that a large fraction of this e-mail actually comes from this laboratory. It seems that stories about bad management are mailed to Scott Adams instead of to the Newsbulletin.

Rather than frowning upon this practice, management should seize upon it as a tool for self-assessment.

I propose that each week, a committee select a cartoon from the previous week's crop — Dilbert appears seven days a week — for publication in the Newsbulletin. In addition, the cartoon and the management problem it addresses, is forwarded to the folks at the Newsbulletin; management, in turn will prepare a response to it in proper Labspeak. Perhaps the response should be placed in the funny pages, too. Everybody benefits!

—Hubert van Hecke

Obituaries

Hermon C. Rowlison

Lab retiree Hermon C. Rowlison of Las Cruces recently passed away after a long illness. He was 67.

Rowlison first came to the Laboratory in 1962 from the Hercules Powder Co., where he was a flight test conductor. He spent four years here as a mechanical engineer in Facilities Design (ENG-2) before leaving to serve as chief liaison engineer for Lockheed Missiles and Space Corp. He returned to the same Lab group in 1974 and retired in 1982.

Rowlison is survived by his wife, Jennie Rowlison of Las Cruces; two sons, Kenneth Rowlison of Nambe and Henry Rowlison of Las Cruces; two daughters, Yvonne Rawson of Las Cruces and Lisa Rowlison of Boulder, Colo.; seven sisters; one brother and several grandchildren, nieces and nephews.

Services were held April 29 at Immaculate Heart of Mary Cathedral in Las Cruces.

James Henry Richardson

Lab retiree James Henry Richardson recently died after a long illness. He was 77.

Although born in Superior, Wis., Richardson and his family moved back and forth across the Canadian-U.S. border many times. He lost his U.S. citizenship when he joined the Canadian Army in 1939. During this time, he served with the Royal Canadian Signal Corps, the National Research Council of Canada and the Canadian Armament Research Division in Valcartier, Quebec.

Richardson regained his citizenship in 1948 and came to the Lab in 1949 from the University of Toronto, working in the MANIAC Computer Group in the Theoretical (T) Division. He helped design and construct the storage systems and arithmetic controls for the Mathematical Analyzer, Integrator and Computer (MANIAC I).

He left the Lab in 1952 to work for the Sperry Rand Corp., but returned to the Lab in 1953 and worked in Computer Research and Development (T-7). There he helped design and construct MANIAC II; Richardson also helped develop thermistor circuitry for the Los Alamos Meson Physics Facility.

He moved over to Computer Controls and Instrumentation (MP-1) in 1971. While there, he developed radiation detection equipment and circuitry for the Beam Spill Monitor. Richardson moved again in 1976, this time to Accelerator Support (MP-11), where he worked on solving special problems related to electronic systems at LAMPF. He retired in 1980, but continued to be active as a consultant.

Richardson is survived by his wife, Kay; two daughters, Cynthia of Cicero, Ill., and Elaine of Willowdale Ontario; three grandchildren and two nieces.

Solar-powered, self-contained units reach from Alaska to Santa Fe

The Neighborhood Environmental Watch Network is a partnership of public, government, and educational institutions that gives communities a way to monitor radiation, barometric pressure, humidity, temperature, and other environmental parameters around the clock.

NEWNET grew out of public concern regarding the radiation effects of nuclear testing. The first monitoring stations appeared around the Nevada Test Site near Las Vegas in the wake of the Three Mile Island nuclear accident in Pennsylvania.

In the absence of nuclear testing, NEWNET's present focus is on environmental monitoring around U.S. nuclear facilities, nuclear waste transportation routes, and environmental restoration sites. The Laboratory is providing the scientific and technological expertise to state agencies wishing to participate in the NEWNET program.

If implemented on a national scale, then in the unlikely occurrence of a major nuclear accident, NEWNET provides immediate information to local residents and scientists who can use the data to verify computer models that predict atmospheric dispersion of radiation over long distances. The entire infrastructure of monitoring stations also can serve as a civilian early warning system for chemical or biological weapons of mass destruction.

The solar-powered NEWNET monitoring stations extend from Point Hope, Alaska, to Santa Fe; the monitoring station is at Santa Fe Preparatory School. The metallic 30-foot tall towers take periodic — typically every 15 minutes — environmental measurements that are displayed onscreen at the site and shipped via satellite to a national database at the Lab where the data is checked for electrical, mechanical, or transmission errors. The Lab presently monitors about 120 stations in the western United States. The stations include 19 from the NEWNET pilot program, 21 remote stations for the Environmental Protection Agency, 20 remote radiological monitoring stations on the Nevada Test Site, and 60 remote automatic weather stations.

Interested citizens, schools, or researchers can observe the results at local monitoring stations at any time. Anyone with a portable personal computer can plug directly into the station and download data recorded in previous days. The public also can view the information on the Internet by pulling up the NEWNET home page at http://newnet.jdola.lanl.gov/newnet.html on the World Wide Web.

Community monitoring stations are operated by members of the public trained by Lab scientists in basic nuclear radiation and station maintenance. The station manager receives technical support as needed from participating state organizations, Los Alamos scientists, and members of other technical support organizations.

Where the monitors are placed is determined by state environment departments after public input is received, said Jim Ogle of Instrumentation and Control (DX-7).

In addition to their monitoring capabilities, the NEWNET system provides schools with an excellent educational tool to teach students the basics of radiation and the connection between radiation, geology, and weather, and other factors. The Lab recently entered into a partnership with Enterlearn Technology, a private company, and Santa Fe Public Schools to develop a curriculum on the basics of radiation and risk. The partners plan to offer the course on the NEWNET home page at a future date.

The researchers in DX-7 believe the NEWNET system will not only give communities the technology to participate in the monitoring of their environment, but the information will help demystify radiation for the public and allow them to weigh the risks of not irradiating restaurant food and not having a way to dispose of high-level nuclear waste.

To make the information available to members of the public who do not have access to personal computers, Lab researchers are developing an "Environmental Teller Machine." The machine, which resembles the automatic teller machines used for personal banking, would be placed in a public location like a library or museum.

Other researchers involved in this project are Cannon Odom and Larry Sanders of DX-7 and Andy Andrews of Human Factors Analysis (TSA-9). Ogle also credited Air Quality (ESH-17) and the Community Involvement and Outreach (CIO) Office.

The Laboratory is seeking funding from outside organizations to secure NEWNET's future. The Lab also is interested in adding any communities to the network that wish to monitor their environments and share the information with the rest of the country.

—Diane Banegas

NEWNET Project Leader Jim Ogle in front of a Los Alamos monitoring station. *Photo by Kathy DeLucas*

Swiss ambassador visits the Laboratory

Swiss Ambassador Carlo Jagmetti, left, chats with Deputy Director Jim Jackson, center, and Paul White of the Center for International Security Affairs (CISA) during a May 24 visit to the Lab. While in Los Alamos, the ambassador toured the Bradbury Science Museum and received a briefing on CISA and the Lab's international partnering programs. He was accompanied by Alphons Mueggler, the Swiss consul general in Houston; David Vogelsanger, political affairs officer at the embassy of Switzerland in Washington, D.C.; and Rainer Wollman, European trade specialist with the New Mexico Economic Development Department. *Photo by Fred Rick*

Chair and vice-chair named for EAC

Tonya Suazo

Armando Vigil

Tonya Suazo of the Industrial Partnership (IPO) Office and Armando Vigil of Engineering Analysis (ESA-EA) have been selected as chair and vice-chair persons respectively, of the Laboratory's Employee Advisory Council.

Suazo and Vigil were selected by a vote of the entire EAC, said outgoing EAC vice-chair Kenneth Salazar of Materials Technology: Coatings and Polymers (MST-7). Suazo and Vigil will serve one-year terms.

"Having served on EAC for the past year I have seen what a valuable tool it can be for employees and management on issues that affect the Lab," Suazo said.

"As chair I would like to strengthen and build on the success of the council by developing an outreach strategy to actively encourage employees to bring their concerns and issues to EAC. The council also will continue to act as a sounding board for senior management."

Suazo said two issues that EAC will follow closely are the Lab's consideration of outsourcing some of its work, and the negotiations between the University of California and the Department of Energy on the renewal of the contract to operate the Lab.

"The EAC has the potential of being the most useful and valuable committee at the Laboratory, because it can truly empower employees," said Vigil. "We need to expand the two-way communication between employees and managers to change the Lab into the kind of organization we want it to be."

Vigil said he will continue to push for early EAC involvement in decision-making at the Lab. He cited the Lab's efforts at considering outsourcing some of its functions as a typical issue for EAC.

Becki Taylor of the Quality and Planning (QP) Programs Office is the outgoing EAC chairperson.

Salazar said membership on EAC has been a learning experience for him. "After all my exposure on EAC, I came out of it with a new respect and understanding for senior management and the difficulties they have to go through. I wish every employee of the Lab had the chance to be exposed to what I was exposed to through EAC."

The Employee Advisory Council provides nonmanagement employees another avenue to communicate with and express concerns to managers. The council meets every two weeks for two hours and takes minutes of meetings, which are available through an electronic bulletin board EAC has established. Employee concerns and questions also can be submitted to the council via electronic mail at *eac@lanl.gov* or by contacting a committee member (see the June 7 Newsbulletin for a list of EAC members and their mail stops).

Since EAC was formed two years ago, it has reviewed several employee issues and concerns, including communications and management accountability. Recently, the EAC developed the proposal that led to the creation of an ombuds office at the Lab. The names of two finalists have been submitted to Laboratory Director Sig Hecker for this position.

The ombuds office at the Lab will work to help create a hospitable work environment for employees by acting as a kind of neutral, confidential listener for employee concerns.

—Steve Sandoval

Laboratory co-sponsors conference to inform Hispanics on environmental issues and careers

The Laboratory and the Department of Energy are among the sponsors of the first "National Hispanic Sustainable Energy and Environmental Conference" which started Thursday in the Albuquerque Convention Center.

The conference continues today and Saturday.

The conference also is sponsored by the Society of Hispanic Professional Engineers Region II. The society is the largest national Hispanic engineering and scientific organization in the nation. Founded in 1974 and headquartered in Los Angeles, the society is a not-for-profit organization with 140 chapters around the country; 100 of those chapters are at major universities.

The conference is designed to inform Hispanics about the need to be active in environmental issues and about careers in environmental engineering.

The conference includes workshops, seminars, an exhibit area and career fair. On Thursday, visits were planned to Los Alamos and Sandia national labs, Intel Corp. in Rio Rancho and the Air Force's Phillips Lab at Kirtland Air Force Base.

At 10:30 this morning, Corlis Moody, director of DOE's Office of Economic Impact and Diversity, is scheduled to participate with other experts on a panel that will discuss DOE's education and environmental programs.

Also scheduled this morning are workshops on environmental issues for Hispanics along the U.S.-Mexico border, Hispanic community-based environmental organizations, Hispanic-owned environmental companies, and the Clean Air and Clean Water acts and how they drive the environmental agenda.

Other workshops scheduled deal with educational challenges facing Hispanic engineers, how to do business with DOE, and careers and internships with major national environmental organizations, labs and the private sector.

Lab employees scheduled to participate in the conference either as panelists or moderators include Michael Brown of Energy and Environmental Analysis (TSA-4), Christina Armijo of the Community Involvement and Outreach (CIO) Office, David Olivas of Facility Project Delivery (FSS-6), Tom Garcia, the Lab's director of Institutional Development, Tom Baca, director of Environmental Management (EM) Programs, Dennis Gill, program manager for Science Education in the Science and Technology Base (STB) Programs Office, Sandra Landry of the Human Resources (HR) Division Staffing Group, Abad Sandoval of Science and Technology Base (STB/UO) Programs and University Outreach team leader, and Virginia Rey of Policy Program and Anaylsis (ESH-12).

—Steve Sandoval

UPS offers direct delivery during pilot program

Illustration by Edwin Vigil

Materials Management (BUS-4) recently started a limited-participation program with United Parcel Service, in which almost any purchase made with a Lab credit card is directly delivered to the purchaser by UPS, saving time and money.

Credit card purchases represent the second largest volume of material that go through the SM-30 general warehouse. Under the program, most credit card purchases in which the item does not weigh more than 150 pounds can bypass the warehouse processing phase and be delivered directly to whoever ordered the product.

Current participants include various groups in the Engineering Sciences and Applications (ESA) and Materials Science and Technology (MST) divisions, the Clinton P. Anderson Meson Physics Facility, Occupational Medicine (ESH-2), the Wellness Center, Johnson Controls World Services Inc. and Protection Technology Los Alamos.

Debbie Graves of BUS-4 said the group wanted to try this program because having credit card purchases go through the warehouse before delivery didn't improve the delivery process itself.

She first contacted Ernie Bennett, UPS account executive for Northern New Mexico, regarding the proposal. Bennett and the UPS center manager in Santa Fe agreed to the program, which began April 1.

Graves said she limited the number of participants in this program so potential problems could be identified quickly and corrected without major service disruption. She and John Maestas, also of BUS-4, contacted the groups and organizations that use their Lab credit cards frequently and asked for their participation.

Other than UPS drivers needing to be escorted into cleared areas to make deliveries (Graves and Maestas serve as escorts), no major problems have arisen, she said. So far, everyone involved in the program has been pleased with the way it is working, added Maestas.

Graves said having UPS deliver the majority of credit card purchases reduces delivery time by up to three hours and also reduces the amount of wear and tear on Lab delivery vehicles, which could amount to significant maintenance cost savings in the long term.

The group now is ready to expand the level of participation in this program at the Lab. If any organization would like to participate, call Graves at 5-9683 or Maestas at 7-4186.

—Ternel Martinez

The Bulletin Board

Notices must be received by noon Monday, June 24, for publication in the June 28 Newsbulletin. Send notices to Mail Stop C318, via fax to 5-5552 or to *newsbulletin@lanl.gov* via electronic mail. If you miss the deadline, we can put your message on UPDATE. Call UPDATE at 5-7778 before noon Monday through Friday. For Newsbulletin information, call 7-6103.

Outreach Center/Reading Room temporarily closed

The Los Alamos Outreach Center/ Reading Room will be closed Tuesday through Thursday due to office reconfigurations. For information or requests during this period, call 5-4000.

May was warmest on record in Los Alamos

Laboratory employees and residents of Los Alamos County don't need numbers and measurements to know that the extreme drought conditions continued in the southwest last month.

But officials statistics show that last month was also the warmest May on record in Los Alamos; the average temperature for the month was 62.9 degrees Fahrenheit, shattering the previous record for the warmest May in Los Alamos, according to Laboratory meteorologist Jeff Baars of Air Quality (ESH-17).

Baars said only two-hundredths (0.02) of an inch of precipitation was recorded last month. The 0.52 of an inch of precipitation recorded at the Technical Area 6 measuring station between March and May is the lowest ever recorded since measurements began in Los Alamos 1911, said Baars.

For the year, only 2.50 inches of precipitation has been recorded; normal precipitation in Los Alamos through May is 5.06 inches, he said.

Eight temperature records were established or tied in May; 79 degrees May 5, 80 the next day, 82 on May 11, 84 on May 12, 82 on May 15, 83 on May 18 and 84 degrees May 19.

Wind gusts exceeding 40 miles per hour were recorded May 6, 16, 17, 19 and 26 in Los Alamos.

No measurable precipitation was recorded at the Technical Area 54 measuring station in White Rock last month; normally nine-tenths of an inch of precipitation falls in White Rock in May, said Baars.

For the year, only 1.48 inches precipitation has fallen in White Rock, which is 44 percent of the normal of 3.39 inches through May, Baars said.

May also was the warmest on record in White Rock, with the average temperature of 63.5 degrees breaking the old record of 62.3 degrees established in 1984.

Sixteen temperature records were set last month in White Rock.

A wind gust of 41.4 miles per hour was recorded on May 31.

Travel reimbursements go online in August

Beginning Aug. 2, all travel reimbursement processes will be done online through the new Travel System. The new system will replace the Travel Reporting Information Planning System.

Debra Bilberry of Systems Support (BUS-7) said the Travel System, the collaboration of several groups within the Computing, Information and Communication (CIC) and Business Operations (BUS) divisions, was created to streamline the trip reimbursement process being done by Travel (BUS-1). The new system will eliminate the current travel request form and revamp the travel expense worksheet process.

Travel System designers first proposed this new system to the Laboratory Leadership Council early this year. The LLC gave suggestions on what the new system should accommodate, such as pre-trip and post-trip approval processes, which the Travel System does.

It also will allow users to enter expense reports, submit summary sheets for claims processing and other reimbursement-related functions from their desktops, said Bilberry. The new system also performs the majority of audit functions, thereby allowing travelers to receive reimbursement checks faster.

The Travel System currently runs on any personal computer utilizing Windows or Macintosh utilizing at least System 7.1.1; however, both platforms must meet the following minimum hardware requirements in order to use the new system:

PC's — 486 SX processor, 20 megabytes (MB) of disk space and 16 MB of read access memory.

Macintosh — 68030 or higher processor, 15 MB of disk space and 24 MB of RAM.

Users also will need to have either an Integrated Computer Network password or a SmartCard to access the new travel reimbursement system. In addition, representatives from the Customer Service (CIC-6) Training, Development and Coordination Team will conduct general overview sessions in the Forum (TA-3, Building 1498) on how the system works.

Uncleared personnel need to be escorted to the sessions, which will take place at the following times and dates: 10:30 a.m. to noon July 9 and 11, and 1:30 to 3 p.m. July 10. The overview sessions are free, but you need to register in advance.

If after the overview you would still like hands-on training on the new system, there will be several training sessions held the weeks of July 15, 22 and 29, and Aug. 5 and 14. The classes also are free, but again registration is required.

If you register for one of the hands-on courses but fail to show up or don't give notice of cancellation 24 hours before the start of the course, your group will be charged $260. For more information on the Travel System, call Bilberry at 5-1444. To register for either an overview or hands-on training session (or both), call Patty Merrill at 7-4090.

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Ride sharing

• **Driver/rider needed** for nonsmoking car pool from Albuquerque (west side), Rio Rancho and Bernalillo to TA-3 area. Hours: 7:30 a.m. to 4 p.m. Call Jan at 7-4259 or Al at 7-9594.

• **Riders needed** for nonsmoking van pool from Santa Fe to town site and various sites including TA-3. Hours: 7 a.m. to 4 p.m. (leave Villa Linda Mall at 6 a.m. and DeVargas Mall at 6:15 a.m.) Call Mike at 104-1000 (pager) or Lorraine at 7-6081.

• **Riders needed** for nonsmoking van pool from La Puebla, Arroyo Seco and Española (Union Hall) to TA-3 and sites along Pajarito Road. Hours: 7:30 a.m. to 4:30 p.m. Call Tony at 104-2141 (pager) or Pearl at 7-7577.

• **Riders needed** for nonsmoking van pools from Albuquerque, Rio Rancho and Bernalillo. Hours: 7:30 a.m. to 4 p.m. (10-hour work day van pool available now). Call David Griego at 877-2360 or 5-8152.

• **Riders needed** for a nonsmoking van pool from Albuquerque (Montgomery at San Mateo) to town site, TA-3 and down Pajarito Road. Hours: 7 a.m. to 4 p.m. Call Roger at 7-1281 or *rbyrd@lanl.gov* by electronic mail.

• **Driver/rider needed** for car pool from Albuquerque to TA-53, TA-3 and S-Site. Hours: 7:30 a.m. to 4 p.m. Call Floyd Sigler at 7-3282 or Ron Flury at 7-2381.

• **Riders needed** for nonsmoking van pool from Albuquerque (westside), Rio Rancho and Bernalillo to Los Alamos. Additional vans available from Albuquerque to Los Alamos. Hours: 7 a.m. to 4 p.m. Call Richard Mirabal in Los Alamos at 5-1449 or 988-0805 (pager), or in Albuquerque at 899-3949 or 848-6942 (pager).

• **Member needed** for nonsmoking car pool from Santa Fe (DeVargas Mall) to TA-3. Hours: 7:45 a.m. to 4:45 p.m. Call Pat at 7-0889 or Don at 7-9832.

Job openings

The University of California is an Affirmative Action/Equal Opportunity Employer. Women, minorities, individuals with disabilities and veterans are encouraged to apply.

The Laboratory's online vacancy system has posted the following additional job openings since the last Newsbulletin. You may access the full job text content, as well as general application procedures, from the Human Resources (HR) Division home page at *http://www.hr.lanl.gov* on the World Wide Web. Please note that jobs listed online are open for a minimum of six working days. Consequently, some of the jobs posted in the following list may be closed by the time they appear in the Newsbulletin.

Public workstations are available in the HR lobby reception area in the Otowi Building for those who may be unfamiliar with computer networking. Applicants, including those with Teletype Devices for the Deaf (TDD), should direct further questions to the HR Staffing Group at (505) 667-8622, or to the phone number given with each job listing below.

GS general support

(961662) INTERNAL/EXTERNAL, MTRLS HANDLER 4, GS 04, BUS-4, ($18,768 - $31,080/yr.), Clearance: Q (Position will be cleared to this level), Number of Openings: 1, (Limited Term Full-Time 2yr), call 7-2710.

TEC technical support

(961418) INTERNAL/EXTERNAL, MTRLS SCI TEC, TEC 05, MST-5, ($29,088 - $52,176/yr.), Clearance: Q (Position will be cleared to this level), Number of Openings: 2, (Regular Full-Time), call 7-9555.

SSM specialist staff member

(961664) INTERNAL/EXTERNAL, HEALTH SYSTEMS COUNSELOR, SSM 01, ESH-2, ($32,232 - $54,096/yr.), Clearance: Q (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 7-7940.

(961668) INTERNAL ONLY, AA/EEO SPEC 3, SSM 02, DVO, ($40,464 - $70,980/yr.), Clearance: L (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 7-4392.

TSM technical staff member

(961661) INTERNAL ONLY, STAFF MEMBER, TSM, ESH-4, Clearance: Q (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 7-7940.

(961667) INTERNAL ONLY, STAFF MEMBER, TSM, ESH-5, Clearance: Q (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 7-7940.

(961669) INTERNAL/EXTERNAL, STAFF MEMBER, TSM, LC-GENERAL, Clearance: Q (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 7-3970.

(961666) INTERNAL/EXTERNAL, STAFF MEMBER, TSM, T-15, Clearance: None, Number of Openings: 1, (Limited Term Full-Time 2yr), call 5-6592.

MGT management

(961663) INTERNAL/EXTERNAL, DEPUTY CENTER LEADER, TSM MGT, CNLS, Clearance: L (Position will be cleared to this level), Number of Openings: 1, (Regular Full-Time), call 5-6592.

A week of events in and around the Lab

Calendar

Notices must be received by noon Monday, June 24, for publication in the June 28 Newsbulletin. Send notices to Mail Stop C318, via fax to 5-5552 or to *newsbulletin@lanl.gov* via electronic mail. If you miss the deadline, we can put your message on UPDATE. Call UPDATE at 5-7778 before noon Monday through Friday. For Newsbulletin information, call 7-6103.

Tuesday, June 25

• **Center for Nonlinear Studies (CNLS) Seminar:** *"Energy Dissipation in Turbulent Shear Flows via an Optimal Background Flow Decomposition,"* David Wick, Clarkson University/CNLS, 10:30 a.m., TA-3, SM-1690, CNLS conference rooms 102 and 104.

• **Fluid Flow and Seismology Seminar Series:** *"Hot Dry Rock: Is There Life After Fenton Hill?"* Dave Duchane, EES-4, 10:30 a.m., TA-3, SM-100, Institute for Geophysics and Planetary Physics Conference Room.

• **Life Sciences (LS) Division Seminar:** *"Phylogenetic Analysis of Aligned Protein Sequences to Detect Tertiary Structural Contacts,"* Bill Bruno, T-10, Health Research Laboratory Auditorium.

• **Center for Nonlinear Studies (CNLS) Seminar:** *"Dynamics of Large-amplitude Internal Waves in Stratified Flows over Topography,"* Dilip Prasad, Massachusetts Institute of Technology, 2 p.m., TA-3, SM-1690, CNLS conference rooms 102 and 104.

• **Center for Nonlinear Studies (CNLS) Colloquium:** *"Mean-field Theory: What do Glasses, Earthquakes and Plasmas Have in Common?"* William Klein, Boston University, 3:30 p.m., TA-3, SM-1690, CNLS conference rooms 102 and 104.

Wednesday, June 26

• **African American Student Association** (a Laboratory-sanctioned organization) **Meeting:** noon every Wednesday. The meeting is open to all high school, undergraduate and graduate students who are employed by the Laboratory. Any interested employees may attend or give presentations. For more information and/or meeting locations, please contact N. Nicole Nelson at 7-1650.

• **Center for Nonlinear Studies/Mathematical Modeling (CNLS/T-7) Seminar:** *"Discrete Analogs of Invariant First-order Operators on Logically Rectangular Grids,"* Mikhail Shashkov, T-7, 1:30 p.m., TA-3, SM-1690, CNLS conference rooms 102 and 104.

Thursday, June 27

• **Condensed Matter and Materials Colloquium:** *"The Life and Times of an Elementary Particle,"* Rob Kiefl, physics department and Canadian Institute of Advanced Research, University of British Columbia, 10:30 a.m., TA-3, SM-32, Center for Materials Science Conference Room 134.

• **Los Alamos Bisexual, Gay, and Lesbian Alliance** (a Laboratory-sanctioned organization) **Meeting:** noon, Mesa Public Library. For more information, call 661-5238.

• **Overeaters Anonymous** (a Laboratory-sanctioned organization) **Meeting**: 12:10 p.m., TA-3, Building 1616. For more information, call 672-0305.

Bulletin Board ...

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Health Physics Checklist Orientation cancelled

The Health Physics Checklist Orientation scheduled for Tuesday at the White Rock Training Center has been cancelled. Orientation will resume at 1:30 p.m. Wednesday at the training center. If you have questions, call Pam Finkbiner at 7-7242.

IA Project

The Information Architecture Project seeks input on the following reissued request for comment:

• IA-5A03-C1: Upgrade PC Operating Systems from Windows 3.x to Windows 95 and NT (Rev. 2.0)

This request for comment proposes upgrading the standard Laboratory PC operating systems by Jan. 1, 1997. In response to comments received, the request has been revised to clarify that Windows 95 is viewed as a migration path toward Windows NT, to specify roles and responsibilities in more detail, and to adjust the timeline to more realistic dates.

In addition, the IA Project has approved the following new guidelines:

• IA-5815-C1: Provisional HTML Markup

• IA-6501: Standard Page Markings for the Laboratory World Wide Web

The first guideline expands IA-5815: Laboratory Standard HTML to include the BGCOLOR attribute for the <BODY> tag, the BORDER attribute for the <IMG> tag, and the <CENTER> tag (with caveats).

The second guideline defines minimum markings for Laboratory World Wide Web pages, including a Lab identifier, standard address elements and release markings for public, internal and sensitive information.

The materials are available online at http://www.lanl.gov/projects/ia/ through the Internet.

The proposals are on the RFCs page. The approved guidelines are on the Standards page.

If you need an electronic mail or printed copy, contact Tad Lane, IA Standards Editor, at 7-0886 or *tad@lanl.gov* by electronic mail.

The final word

Two Lab employees pursue a quest for the 'Final Frontier'

Don Pettit

John Phillips

1991: Pettit sits inside a KC-135 next to a sheet float zone surface, a machine that processes high-temperature superconductor materials in zero gravity. Pettit already knows what it's like to work under zero gravity conditions. Through many prior dealings with NASA, Pettit has logged 70 hours on this NASA KC-135 plane (background photo), which flies in a parabolic flight path and produces repeated periods of zero gravity. When this picture was taken, the plane was climbing to 35,000 feet, preparing for another zero gravity maneuver. *Photos courtesty of NASA*

Ever since Neil Armstrong made that "giant leap for mankind" when he became the first person to set foot on the moon in 1969, man has been searching for ways to venture ever further into the cosmos and learn the secrets of what lies "out there." Many apply to NASA each year for the chance to experience what the Final Frontier has to offer. Few make it.

Two Lab scientists recently did.

John Phillips of Space and Atmospheric Sciences (NIS-1) and Donald Pettit of Energy and Process Engineering (ESA-EPE) were notified this spring by NASA that they were among a select few who have been chosen to enter the NASA space program, thus taking the first step in realizing their dreams of becoming astronauts after years of patience, and at times, frustration.

The two won't really become astronauts until they finish a rigorous, year-long training program beginning Aug. 12 at the Johnson Space Center in Houston. During this time, Phillips and Pettit will be known as astronaut candidates. They both will be trained as mission specialists.

Phillips' quest for space travel began about 20 years ago, when he first applied under a Navy program. "I never made it past the Navy cut," he said, adding that he kept updating his application at least 15 times during this 20-year span.

Phillips, who is a principal investigator for a currently ongoing NASA/European Space Agency mission on the Ulysses satellite, was asked by NASA about five years ago to take a Federal Aviation Administration flight physical, which he passed, and submit to NASA as part of the screening process.

"NASA gradually showed more and more interest in me," he said. Two years ago, Phillips finally made it to the last stage of the selection process, an interview with a board of current astronauts. However, he was not picked that year.

Phillips again was interviewed last December. This time, the nine-year Lab scientist felt his chances of finally making it were about even, although he noted, "I didn't allow my hopes to get up too high. I did that the last time, and I obviously was disappointed when I didn't make it."

Phillips was on a three-month sabbatical doing physics research at a Japanese university when NASA notified him in April that he had been among those chosen. "I was a little surprised, but pleasantly so," the former jet fighter pilot said. As it turns out, his call to report to Houston affected his sabbatical by only one week.

Pettit first applied for membership in the NASA space program in late 1983, but over the years he went through four interviews before finally making it. "Of course I went through periods of frustration," he said, "but it's just like the story about the little train, where it keeps saying, 'I know I can, I know I can, I know I can.' I never doubted I would make it one day."

His first interview occurred in March 1984, not more than two months after first coming to Los Alamos. It's ironic that Pettit never would have had a career at the Lab had NASA chosen him at that time. His other three interviews were in 1987, 1993 and 1995.

"Each time, they would ask me questions like, 'What kinds of activities did you do in high school?' 'What are your hobbies?' 'What are you currently working on in your field?'" he recalled. "I personally know many of the astronauts who interviewed me."

Pettit was in New Zealand, performing work on a remote sensory program for volcanic fumarole gases, when he received his call from NASA.

Like Phillips, Pettit is no stranger to NASA. In 1991, he participated in the Synthesis Group, a group commissioned by then-president George Bush and charged with determining how the United States would return to the moon and travel to Mars. Engineering Sciences and Applications (ESA) Director Dick Burick also participated in this group.

Pettit also helped with the redesign of the space station Freedom in 1993. NASA is scheduled to begin constructing the station next year.

As mission specialists, Phillips and Pettit will perform science projects for NASA, although their being hired probably received special impetus because of the upcoming launch, construction and operation of the space station. "I'm looking forward to being involved in space station construction," said Phillips.

As for Pettit, he too feels he is ready to enter the world of space. "Having gone through all the work I've done for NASA over the years, I think I have a pretty good idea of what to expect from the program," said Pettit.

—Ternel Martinez